

EXHIBITS

H - E

JPA 93-86

EXHIBIT "A"

1 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2 REGION 9

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6 IN THE MATTER OF:

7 STATE OF ARIZONA
8 DEPARTMENT OF TRANSPORTATION

9 Under Authority of the

Comprehensive Environmental
Response, Compensation, and
Liability Act of 1980, as
amended, 42 U.S.C. §§ 9601
et seq.

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NO. 1/2 285

FILED WITH SECRETARY OF STATE

Date Filed 1/25/91

Richard H. Atkinson

Secretary of State

James J. Marcellino

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) EPA Reg. 9 Docket No. 91-13

) AZ A.G. Contr. # KR91-0945-TRD

) ECS File: JPA 90-87

) AGREEMENT AND COVENANT

) NOT TO SUE

) RE: INDIAN BEND WASH

) SUPERFUND SITE

1

I. INTRODUCTION

2 A. This Agreement and Covenant Not to Sue ("Agreement") is
3 made and entered into by and between the United States Environ-
4 mental Protection Agency ("EPA") and, in accordance with Arizona
5 Revised Statutes, Sections 11-951 through 11-954, as amended, the
6 Arizona Department of Transportation ("ADOT").

7 B. This Agreement is entered into by the EPA pursuant to
8 the authority conferred on the President by the Comprehensive En-
9 vironmental Response, Compensation and Liability Act of 1980
10 ("CERCLA") as amended, 42 U.S.C. §§ 9601, et seq.

11 C. ADOT agrees to undertake all actions required by the
12 terms and conditions of this Agreement. ADOT further consents to
13 and will not contest EPA's authority to make this Agreement or to
14 implement or enforce its terms.

II. PURPOSE

16 The purposes of this agreement are:
17 1. To resolve the potential liability of ADOT for present
18 contamination, as defined in Article III, in anticipation of
19 ADOT's acquisition of portions of the Indian Bend Wash Superfund
20 Site for construction of a proposed freeway;
21 2. To have ADOT finance and perform the investigation and
22 clean-up of a portion of the Freeway Property, as defined in Ar-
23 ticle III, excluding groundwater contamination, that lies within
24 the Indian Bend Wash Superfund Site.
25 3. To have ADOT install three monitoring wells, to assist
26 EPA in its region-wide monitoring program;
27 4. To accommodate ADOT's use of the Freeway Property for a
28 freeway in a manner consistent with the National Contingency Plan.

1 (40 C.F.R. Part 300) and the remedy for the Indian Bend Wash Su-
2 perfund Site that EPA ultimately selects.

3 III. DEFINITIONS

4 A. "Freeway Property" means all property ADOT acquires for
5 construction of the East Papago Freeway and Interchange which
6 lies within the boundaries of the Indian Bend Wash Superfund
7 Site. (See drawings in Exhibits B1 and B2.)

8 B. "Groundwater" means water in a saturated zone or
9 stratum beneath the surface of land or water.

10 C. "Hazardous Substance" is given the same meaning
11 provided for that term in Section 101(14) of CERCLA, 42 U.S.C.
12 § 9601(14).

13 D. "Perched Groundwater" means groundwater confined by
14 strata above the normal level of the water table; it does not in-
15 clude rainwater or floodwater percolating through the vadose
16 zone, surface water, or normal soil moisture.

17 E. "Pollutant or Contaminant" has the meaning provided for
18 that term in Section 101(33) of CERCLA, 42 U.S.C. § 9601(33).

19 F. "Present Contamination" means those hazardous sub-
20 stances, pollutants or contaminants that exist on or under the
21 Freeway Property when ADOT enters into its possession under an
22 Order of Immediate Possession, or takes title, whichever comes
23 first.

24 G. "Vadose Zone" means the unsaturated zone of soil above
25 the water table.

26 IV. STATEMENT OF FACTS

27 A. Indian Bend Wash Superfund Site

28 1. WHEREAS, The EPA has determined that there have been

1 releases of hazardous substances to the environment, within the
2 Cities of Tempe and Scottsdale in the County of Maricopa,
3 Arizona;

4 2. WHEREAS, the area in Tempe bounded by Scottsdale Road
5 to the west, Apache Boulevard to the south, Price Road to the
6 east, and extending approximately six miles northward into Scot-
7 tsdale, intersecting the Salt River, was listed on September 8,
8 1983 on the National Priorities List of hazardous substance sites
9 as the "Indian Bend Wash Superfund Site," pursuant to Section 105
10 of CERCLA, 42 U.S.C. § 9605;

11 3. WHEREAS, the area of the Indian Bend Wash Site which is
12 south of Curry Road, while still part of the overall Indian Bend
13 Wash Superfund Site, is being addressed by EPA as a southern por-
14 tion of the Indian Bend Wash Site, and will contain one or more
15 Superfund operable units (hereinafter called the "SIBW Site");
16 4. WHEREAS, the groundwater beneath the SIBW Site contains
17 a variety of volatile organic compounds including but not limited
18 to trichloroethylene, dichloroethylene, vinyl chloride, methane,
19 toluene, benzene, and ethyl benzene;

20 5. WHEREAS, these substances at the SIBW Site are
21 "hazardous substances" pursuant to Section 101(14) of CERCLA, 42
22 U.S.C. § 9601(14), and/or are "pollutants or contaminants" pur-
23 suant to Section 101(33) of CERCLA, 42 U.S.C. § 9601(33);
24 6. WHEREAS, the SIBW Site encompasses an area where many
25 different business and light industry facilities have conducted
26 operations, including circuit manufacturing, microchip fabricat-
27 ing, metal scrap reclamation, dry cleaning, cement production,
28 transformer cleaning, automotive repair, clothing manufacturing,

1 mining, junkyards and landfills;

2 7. WHEREAS, any or all of these individual facilities may
3 have contaminated soils, leaking tanks, or other forms of
4 releases that are acting as sources of the present contamination
5 to the surface and subsurface soils and the groundwater;

6 8. WHEREAS, EPA has identified many facilities which are
7 likely to be current or former sources of contamination to
8 groundwater, based on soil gas sampling results and analysis of
9 records;

10 9. WHEREAS, the area of the SIBW Site at and near the
11 southern bank of the Salt River bed contains private landfills
12 containing largely construction debris, but which also may con-
13 tain hazardous substances, and those landfills may be subject to
14 the Clean Water Act (33 U.S.C. §§ 1251 *et seq.*);

15 10. WHEREAS, EPA is taking action pursuant to CERCLA to in-
16 vestigate the nature of contamination at the SIBW Site, to select
17 a remedy for the contamination, and to implement the remedy;
18 while using enforcement authorities allowed by law to compel
19 those persons found liable, pursuant to Section 107 of CERCLA, 42
20 U.S.C. § 9607, to assist or pay for these activities;

21 11. WHEREAS, after the public comment period required by
22 law, EPA will issue one or more Record of Decisions selecting the
23 interim or final clean-up actions at the SIBW Site;

24 12. WHEREAS, EPA recognizes that the remedies selected for
25 the Freeway Property must be consistent with the remedies
26 selected for the SIBW Site;

27 B. ADOT's Proposed Freeway Project

28 1. WHEREAS, ADOT, which prior to this Agreement has not

1 owned property or operated facilities within the boundaries of
2 the SIBW Site, now proposes to acquire Freeway Property in the
3 SIBW Site for the purposes of building a freeway which will cross
4 the SIBW Site from east to west at or near the northern SIBW
5 boundary;

6 2. WHEREAS, some of the property to be acquired by ADOT is
7 now owned by the Arizona State Land Department, and any part of
8 the Arizona State Land Department property not purchased by ADOT
9 is excluded from this Agreement;

10 3. WHEREAS, citizens of the State of Arizona voted pur-
11 suant to an election held October 5, 1985 to improve the
12 transportation system in the Maricopa County area, and raised
13 money for this purpose;

14 4. WHEREAS, ADOT finds it in the best interest of the
15 citizens to extend the freeway system east of the City of
16 Phoenix;

17 5. WHEREAS, to accomplish this, ADOT intends to acquire
18 real property for a proposed freeway along the Salt River in
19 Tempe, Arizona, approximately two miles long and of variable
20 width from 300 feet to one half mile, (as shown in the attached
21 drawings, Exhibits B1 and B2 which depict the Freeway Property);

22 6. WHEREAS, ADOT intends to acquire the Freeway Property
23 through the exercise of eminent domain authority by purchase or
24 condemnation, and in the absence of this Agreement may poten-
25 tially acquire liability under Section 107 of CERCLA, 42 U.S.C. §
26 9607, for performing response actions or for paying response
27 costs incurred by EPA in responding to the SIBW Site;

28 7. WHEREAS, ADOT may meet the definition of "government

1 entity" within the terms of Section 101(35)(A)(iii) of CERCLA, 42
2 U.S.C. § 101(35)(A)(ii), because it intends to acquire the
3 Freeway Property through the exercise of eminent domain authority
4 by purchase or condemnation, and, through this Agreement, ADOT
5 seeks to resolve any potential liability under CERCLA as the
6 owner of the Freeway Property where hazardous substances have
7 been released prior to its acquisition;

8 8. WHEREAS, the freeway, which ADOT has named the "East
9 Papago Freeway," as currently proposed, will cross into the SIBW
10 site at Scottsdale Road and run through McClintock Drive and to
11 what is now an extension of Price Road at the location of the
12 proposed "Red Mountain Interchange" to the east of the SIBW Site,
13 thereby crossing the Salt River gradually along its axis and bor-
14 dering the southern edge of the Salt River-Pima Maricopa Indian
15 Community;

16 9. WHEREAS, the proposed alignment of the Freeway lies on
17 or near several former and current private landfills along the
18 northern boundary of the SIBW Site;

19 10. WHEREAS, some of the landfills at the SIBW Site have
20 been found to contain elevated levels of methane, trichloro-
21 ethylene, perchloroethylene, trichloroethane, toluene, ethyl ben-
22 zene, and other volatile organic compounds;

23 11. WHEREAS, the construction of the proposed Freeway may
24 cause the disturbance, movement, and/or exposure of soils,
25 debris, or buried or decaying materials which may be contaminated
26 with hazardous substances;

27 12. WHEREAS, the Salt River, an ephemeral river (dry during
28 most of the year) floods on occasion, which inundates portions of

1 said landfills, potentially resulting in erosion and the un-
2 desirable migration of hazardous contaminants into the water
3 table and downriver;

4 13. WHEREAS, the banks of the Salt River at the SIBW site
5 are unparallel, unstable and subject to river scour and erosion;
6 and the river bed is highly disturbed from its natural state by
7 human activities, degraded, mined, filled, and rutted;

8 14. WHEREAS, the flood plain of the Salt River at the SIBW
9 site is expanding and threatens bridges, buildings, and other
10 parts of the City of Tempe;

11 15. WHEREAS, the banks of the Salt River do contain certain
12 areas that may be designated as wetlands;

13 16. WHEREAS, EPA seeks to comply with the requirements of,
14 and address the concerns raised by, other federal and state en-
15 vironmental statutes, and maximize the available resources for
16 cleaning up the contamination in the landfills;

17 17. WHEREAS, ADOT proposes to build an erosion and flood
18 control structure, called "bank stabilization," near the south
19 bank of the Salt River, in order to protect the freeway struc-
20 tures from erosion and flood damage, and the construction of said
21 structure will be subject to all applicable local, state and
22 federal statutes and regulations governing such construction, in-
23 cluding Section 404 of the Clean Water Act, 33 U.S.C. § 1344;

24 18. WHEREAS, ADOT may need to move or remove certain
25 landfill materials in order to construct the freeway and struc-
26 tures to protect the freeway;

27 19. WHEREAS, the construction and operation of the freeway
28 and construction of structures to protect the freeway must be

1 consistent and not interfere with the remedial action alternative
2 to be selected by EPA for the SIBW Site;

3 20. WHEREAS, ADOT has offered to further certain EPA goals,
4 as provided in this Agreement, for the protection of human health
5 and the environment at the SIBW Site in exchange for a Covenant
6 Not to Sue under CERCLA, according to the terms of this Agree-
7 ment;

8 21. WHEREAS, of the total response costs for the SIBW Site,
9 and subject to the provisions identified in the Reservation of
10 Rights (Article XI) and the Certification of ADOT (Article IX),
11 ADOT will only be responsible for those costs and activities
12 described herein;

13 22. WHEREAS, ADOT's work must be consistent with the EPA-
14 approved response actions and must contribute to the efficient
15 performance of the long-term remedial action with respect to the
16 release of hazardous substances;

17 23. EPA and ADOT hereby enter into this Agreement.

18 V. DETERMINATIONS

19 A. Based upon the Statement of Facts set forth above and
20 in the administrative record for this Site, EPA has determined
21 that:

22 1. The SIBW Site as described in Article IV of this Agree-
23 ment is a "facility" as that term is defined in Section 101(9) of
24 CERCLA, 42 U.S.C. § 9601(9).

25 2. ADOT is a "person" as that term is defined in Section
26 101(21) of CERCLA, 42 U.S.C. § 9601(21).

27 3. ADOT is a prospective "owner" of a facility within the
28 meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

1 4. The past, present, or future migration of hazardous sub-
2 stances from the Indian Bend Wash Superfund Site constitutes an
3 actual or threatened "release" as that term is defined in Section
4 101(22) of CERCLA, 42 U.S.C. § 9601(22).

5 5. Entering into this Agreement and Covenant Not to Sue
6 with ADOT is practicable and in the public interest.

7 B. In consideration of the promises and covenants set
8 forth herein, it is hereby AGREED:

9 VI. ACCESS AND NOTICE

10 A. ADOT hereby grants to EPA, its representative, contrac-
11 tors, agents and all other persons performing response actions
12 under EPA's oversight, an irrevocable right of access to the
13 Freeway Property, upon reasonable notice and at all reasonable
14 times, for the purposes of monitoring compliance with the terms
15 of this Agreement and performing response actions at the SIBW
16 site. EPA recognizes the need for continued use of the freeway
17 by the public, the traveling safety of the public, and the neces-
18 sity for ADOT's contractor to proceed with construction of the
19 freeway. Therefore, except in emergency situations, EPA shall
20 give any notices of access to ADOT's Project Engineer during
21 ADOT's clean up activities or freeway construction, and there-
22 after to the District 1 Engineer. ADOT shall deliver names, ad-
23 dresses, and phone numbers of the aforementioned persons to the
24 EPA Remedial Project Manager for the SIBW Site within 45 days of
25 the effective date of this Agreement. This Agreement does not
26 restrict or limit any right EPA may have to enter the SIBW Site,
27 including the Freeway Property, pursuant to statutory or
28 regulatory authority.

1 B. After ADOT acquires the Freeway Property, ADOT shall
2 file in the land records of Maricopa County, a notice regarding
3 the Freeway Property approved by EPA, to notify subsequent pur-
4 chasers of the land that hazardous substances were disposed of on
5 the SIBW Site and that EPA makes no representations as to the ap-
6 propriate use of the property.

7 C. Nothing in this Agreement shall in any manner restrict
8 or limit the nature or scope of response actions which may be
9 taken by EPA in fulfilling its responsibilities under federal
10 law. ADOT recognizes that the implementation of response actions
11 at the SIBW Site may interfere with the use of its property.
12 ADOT agrees to cooperate with EPA in the implementation of
13 response actions at the SIBW Site and further agrees not to in-
14 terfere with such response actions.

15 D. EPA recognizes ADOT's right to use its Freeway Property
16 for a public purpose, i.e., a traveled highway. Both parties
17 agree to cooperate in accomplishing the other party's priorities
18 consistent with this Agreement.

19
20 A. Nothing in this Agreement shall be construed to relieve
21 ADOT of its duty to exercise due care with respect to the hazard-
22 ous substances at the SIBW Site, within the meaning of Section
23 107(b)(3)(a) of CERCLA, 42 U.S.C. § 9607(b)(3)(a), or its duty to
24 comply with all applicable laws and regulations.

25 B. EPA acknowledges it is responsible for EPA's, EPA's
26 employees' or EPA's contractors' actions in accordance with ap-
27 plicable federal law.

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VIII. WORK TO BE PERFORMED

- 2 A. ADOT agrees to perform an Engineering Evaluation and
3 Cost Analysis (EE/CA) and the removal tasks to be set forth in an
4 Action Memorandum to be issued by EPA after approval of the
5 EE/CA, as more fully described in the Scope of Work and schedules
6 attached hereto as Exhibit C and incorporated herein, and in ac-
7 cordance with the schedules and standards set forth therein.
8 ADOT also agrees to install monitoring wells at the SIBW Site,
9 only as described, defined and limited by this Article of the
10 Agreement.

- 11 B. Specifically, ADOT agrees to perform, at its sole ex-
12 pense, the following actions:

- 13 1. Perform, prepare and submit the EE/CA on the Freeway
14 Property according to the attached Scope of Work and the
15 schedules (Exhibit C). This EE/CA will evaluate, according to
16 EPA criteria, regulations, policy and guidance, alternatives for
17 the following at the Freeway Property;
18 a. The EE/CA will contain an analysis of clean-up of
19 all hazardous substances, pollutants or contaminants,
20 within the vadose zone (the unsaturated zone of soil
21 above the water table) on the Freeway Property.
22 This analysis will include:
23 i. Calculation of volume of contaminated
24 material,
25 ii. Risks of moving it compared to leaving it in
26 place,
27 iii. A full range of alternatives for treatment of
28 the hazardous substances, pollutants or con-

- 1 taminants as well as containment,
- 2 iv. The objective of a permanent reduction in the
- 3 volume, toxicity, and mobility of con-
- 4 taminated material; and
- 5 v. The objective of identifying and meeting ap-
- 6 plicable or relevant and appropriate require-
- 7 ments (ARARs) under CERCLA.
- 8 b. ADOT shall determine the use, disposition of, or
- 9 ultimate stabilization of nonhazardous materials which,
- 10 if disturbed, exposed, or otherwise changed in compo-
- 11 sition might cause the further migration, increased
- 12 toxicity, or increased exposure to the public or the
- 13 environment of hazardous substances, pollutants or con-
- 14 taminants;
- 15 2. Site characterization sampling and analysis is re-
- 16 quired, as set forth in the scope of work under Task 1. Such
- 17 sampling efforts have already been completed by ADOT. However,
- 18 if additional sampling is required by EPA, then prior to conduct-
- 19 ing such sampling, ADOT shall submit a sampling plan/quality as-
- 20 surance plan to EPA outlining the rationale for sampling loca-
- 21 tions, sampling techniques, and quality assurance management
- 22 techniques for field and laboratory, and specifying the quality
- 23 control protocols to be used;
- 24 3. ADOT shall provide a summary of data quality, based on
- 25 available documentation, for all sampling.
- 26 4. ADOT shall revise any additional sampling plan/quality
- 27 assurance plans and previous data summary according to EPA com-
- 28 ments, subject to EPA approval.

1 5. ADOT shall perform all tasks of the EE/CA in accordance
2 with the approved sampling plan/quality assurance plans, subject
3 to EPA approval.
4 6. ADOT shall submit a draft EE/CA report as a result of
5 the analysis specified in Item 2 of this Article for EPA's review
6 and approval, including data and analysis from all sampling ef-
7 forts.

8 7. ADOT shall submit a final EE/CA addressing EPA's com-
9 ments on the draft EE/CA, subject to EPA approval, including data
10 and analysis from all sampling efforts.

11 8. ADOT shall perform additional sampling work if deter-
12 mined necessary by EPA for protection of human health and the en-
13 vironment, or for proper evaluation of EE/CA alternatives, and if
14 required by EPA, prepare a sampling plan for such work.

15 9. Upon EPA's approval of the EE/CA, ADOT shall submit to
16 EPA a draft design plan with a schedule for implementing the
17 removal action selected by EPA based on the EE/CA, and revise
18 this plan according to EPA comments, subject to EPA approval.
19 The design plan shall include a plan for protecting the public
20 health while the action is being implemented.

21 10. ADOT shall implement the selected removal action ac-
22 cording to the approved design plan and schedule. The clean-up
23 by ADOT will be limited to removal of hazardous substances, pol-
24 lutants or contaminants present at the surface, in wastes, and in
25 vadose zone materials on the Freeway Property. ADOT will also
26 remove and treat these materials as required by EPA's Action
27 Memorandum for hazardous substances, pollutants or contaminants
28 present on said Freeway Property. A considerable amount of con-

1 structure debris and rock/soil fill materials that does not contain
2 hazardous materials may also be removed for construction of
3 embankments and other structures associated with freeway con-
4 struction. The actual clean-up is more fully described in the
5 Scope of Work, Exhibit C.

6 11. ADOT agrees not to build any bank stabilization along
7 the south bank of the Salt River, between McClintock Drive and
8 Price Road extended, that intersects landfill material without
9 prior approval of EPA. ADOT agrees to submit to EPA any plans or
10 proposals for building such a bank, and to modify the plans if
11 EPA determines such modifications are necessary to protect human
12 health or the environment.

13 12. ADOT agrees not to move or remove any landfill material
14 within the SIBW Site without the prior approval of EPA. If ADOT
15 proposes to move or remove any landfill material, ADOT shall submit
16 a contingency plan, subject to EPA approval, for the protec-
17 tion of human health and the environment during removal ac-
18 tivities.

19 13. ADOT shall install and develop three groundwater
20 monitoring wells, in the upper (shallow) alluvial unit, at loca-
21 tions and in accordance with construction specifications, as
22 provided by EPA, and only if EPA provides ADOT any necessary per-
23 mission outside of the Freeway Property at no expense to ADOT.
24 The construction specifications may be modified upon mutual
25 agreement by both parties. The wells shall be installed by ADOT
26 under an appropriate temporary construction easement. After
27 completion of the wells, ADOT shall have no further respon-
28 sibility for maintenance or other work on the wells.

1 14. ADOT shall have no responsibility under this Article of
2 the Agreement to clean up any present contamination of
3 groundwater, including, but not limited to, any perched
4 groundwater contamination.

5 IX. CERTIFICATION OF ADOT

6 ADOT certifies that to the best of its knowledge and belief
7 it has fully and accurately disclosed to EPA all information cur-
8 rently in its possession and in the possession of its employees,
9 contractors or agents which relates in any way to its status as a
10 prospective condemnor and its lack of liability pursuant to
11 CERCLA at the SIBW Site. If the information provided by ADOT
12 pursuant to this Article IX is not materially true and complete,
13 the Covenant Not To Sue in Article X shall not be effective.

14 X. COVENANT NOT TO SUE

15 A. In consideration of, and in exchange for, the promises,
16 agreements and work to be performed by ADOT, and subject to the
17 reservation of rights in Article XI of this Agreement, EPA
18 covenants not to sue or take any other civil or administrative
19 action against ADOT for any and all civil liability for injunc-
20 tive relief or reimbursement of response costs pursuant to sec-
21 tions 106 or 107(a) of CERCLA, 42 U.S.C. § 9606 or 9607(a), or
22 Section 7003 of the Resource Conservation and Recovery Act, as
23 amended, 42 U.S.C. § 6973, with regard to the Present Contamina-
24 tion on or under the Freeway Property.

25 B. In consideration of EPA's Covenant Not to Sue, ADOT
26 agrees not to assert any claims or causes of action against the
27 United States or its contractors or its employees or the Hazard-
28 ous Substance Superfund arising out of expenses incurred or pay-

1 ments made or work performed pursuant to this Agreement, or to
2 seek any other costs, damages, or attorney's fees from the United
3 States or its contractors or employees arising out of response
4 activities at the SIBW Site, or as a result of the Present Con-
5 tamination.

6 C. This Covenant Not to Sue is not a general release under
7 Arizona law, nor the law or any other state or jurisdiction.

8 XI. RESERVATION OF RIGHTS

9 A. Nothing in this Agreement is intended to be, nor shall
10 it be construed as, a release or covenant not to sue for any
11 claim or cause of action, administrative or judicial, at law or
12 in equity, which the United States, including EPA, may have
13 against ADOT for:

- 14 1. the release or threat of release of any hazardous
15 substance, pollutant or contaminant resulting from
16 ADOT's operation of the freeway;
- 17 2. the release or threat of release of any hazardous
18 substance, pollutant or contaminant resulting from the
19 introduction of any hazardous substance, pollutant or
20 contaminant at the Freeway Property by any person after
21 the date of its acquisition by ADOT;
- 22 3. exacerbation of the Present Contamination;
- 23 4. failure to cooperate and/or interreference with the
24 EPA, its response action contractors, or other persons
25 conducting response activities under EPA oversight in
26 the implementation of response actions at the SIBW
27 Site, except as modified or limited by the notice
28 provisions of this Agreement;

- 1 5. failure to exercise due care with respect to any
2 contamination at the SIBW site;
3 6. any and all criminal liability;
4 7. failure to provide access, notice, or otherwise
5 comply with Article VI of this Agreement;
6 8. failure of ADOT to meet a requirement of this
7 Agreement;
8 9. future transportation and disposal of hazardous
9 substances from the SIBW site;
10 10. ownership of real property by the State of
11 Arizona, or any of its Departments other than ADOT,
12 prior to the effective date of this Agreement; or
13 11. any matters not expressly included in the Covenant
14 Not To Sue set forth in Article X of this Agreement,
15 including, without limitation, any liability for
16 damages to natural resources.
17 B. Nothing in this Agreement constitutes a covenant not to
18 sue or to take action or otherwise limits the ability of the
19 United States, including EPA, to seek or obtain further relief
20 from ADOT, and the Covenant Not To Sue in Article X of this
21 Agreement is null and void, if information different from that
22 specified in Article IV, is discovered which indicates that ADOT,
23 prior to acquiring the Freeway Property, is liable under Section
24 107 of CERCLA, 42 U.S.C. § 9607 for the Present Contamination at
25 the SIBW site.
26 C. Notwithstanding any other provisions of this Agreement,
27 EPA reserves the right to seek modification of this Agreement or
28 to institute an action to compel ADOT to reimburse EPA for

1 response costs if previously unknown conditions are discovered or
2 information is received after the effective date of this Agree-
3 ment, and these previously unknown conditions or this information
4 indicate that ADOT is liable for the Present Contamination.

5 D. Nothing in this Agreement is intended as a release or
6 covenant not to sue for any claim or cause of action, administra-
7 tive or judicial, civil or criminal, past or future, in law or in
8 equity, which the United States, including EPA, may have against
9 any person, firm, corporation or other entity not a signatory to
10 this Agreement.

11 E. ADOT also reserves its right under laws of Arizona and
12 federal law to assert all claims or causes against any person,
13 firm, corporation, or any other entity, including its officers,
14 directors, shareholders and employees, other than the United
15 States, including prior owners or operators of the Freeway
16 Property, for any costs incurred by ADOT for removal or remedial
17 actions at the SIBW or Freeway Property Site.

18 F. In the event ADOT asserts claims against such entities,
19 other than the United States, EPA agrees to cooperate with ADOT
20 by making available, pursuant to the Freedom of Information Act,
21 5 U.S.C. § 552, all appropriate documents that ADOT may request.

22 G. EPA and ADOT agree that the actions undertaken by ADOT
23 in accordance with this Agreement do not constitute an admission
24 of any liability by ADOT. ADOT does not admit and retains the
25 right to controvert in any subsequent proceedings, other than
26 proceedings to implement or enforce this Agreement, the validity
27 of the Statement of Facts (Article IV) or Determinations (Article
28 V) contained in this Agreement.

1 XII. OTHER APPLICABLE LAWS

2 ADOT agrees to abide by all federal and state laws and

3 regulations and to exercise due care in connection with the

4 Present Contamination on or under the Freeway Property, as well

5 as with any hazardous substances present at the SIBW Site.

6 XIII. DISCLAIMER

7 This Agreement in no way constitutes a finding by EPA as to

8 the risks to human health and the environment which may be posed

9 by contamination at the SIBW Site. This Agreement does not con-

10 stitute a representation by EPA that the property is fit for any

11 particular use.

12 XIV. RETENTION OF RECORDS

13 ADOT shall retain all reports concerning hazardous waste or

14 remedial action, plans, and contracts relating to the construc-

15 tion on the Freeway Property for a minimum of ten (10) years from

16 the effective date of this Agreement unless otherwise agreed to

17 by the parties. Thereafter, none of the above records shall be

18 destroyed unless notice of the destruction is provided to EPA by

19 mail at least sixty (60) days prior to the destruction. All such

20 records, until destroyed pursuant to this Article, shall be made

21 available for copying upon EPA's written request.

22 XV. PARTIES BOUND

23 This Agreement shall apply to and be binding upon EPA and

24 ADOT, and any successors in interest and assigns. The sig-

25 natories represent that they are fully authorized to enter into

26 the terms and conditions of this Agreement and to legally bind

27 the respective parties to this Agreement. In the event that ADOT

28 transfers title or possession of the Freeway Property, it shall

1 notify EPA prior to any such transfer and shall continue to be
2 bound by all of the terms and conditions of this Agreement unless
3 EPA agrees otherwise and modifies this Agreement accordingly.

4 XVI. EFFECTIVE DATE

5 The effective date of this Agreement is the date on which it
6 is fully executed by EPA and ADOT, and concurred in by the United
7 States Department of Justice.

8 XVII. BUDGETARY RESTRICTIONS

9 A. It is understood and agreed that all work required to
10 be done under this Agreement in excess of the funds now approved
11 and budgeted for this project shall not be done nor any obliga-
12 tion incurred therefore until such time as the Arizona Transpor-
13 tation Board approves the additional funds and the same are
14 budgeted for this project by ADOT.

15 B. All parties are hereby put on notice that this Agree-
16 ment is subject to cancellation, pursuant to Arizona Revised
17 Statute 38-511.

18 C. If the work required by this Agreement is not performed
19 by ADOT due to the failure of the Arizona Transportation Board to
20 approve the necessary funds or due to failure of ADOT to budget
21 funds for the project, or should the Agreement be canceled pur-
22 suant to Arizona Revised Statute 38-511, then the Covenant Not to
23 Sue in Article X is null and void.

24 XVIII. ADOT'S SUBSEQUENT ACQUISITIONS

25 If ADOT acquires additional Freeway Property as that term is
26 defined in Article III, those acquisitions will be governed by
27 the terms, conditions, and covenants of this Agreement.

1 XIX. LIABILITY

2 ADOT may meet the definition of "government entity" within
3 the terms of Section 101(35)(A)(ii) of CERCLA, 42 U.S.C.
4 § 101(35)(A)(ii), because it intends to acquire the Freeway
5 Property through the exercise of eminent domain authority by pur-
6 chase or condemnation, however, through this Agreement, ADOT
7 seeks to resolve any potential liability under CERCLA as the
8 owner of the Freeway Property where hazardous substances have
9 been released prior to its acquisition.

10 XX. AMENDMENT

11 This Agreement, or any part thereof, may be amended by
12 mutual written agreement between the parties.

13 XXI. RESPONSE ACTION CONTRACTORS

14 The execution of this Agreement shall in no way be used by
15 EPA to bar ADOT the response action contractor status it may re-
16 quest pursuant to Section 119 of CERCLA, 42 U.S.C. § 9619, under
17 then existing federal laws, regulations and EPA policies. EPA
18 agrees to evaluate any such request and advise ADOT whether EPA
19 will grant such a request.

20 XXII. DURATION

21 Upon satisfactory completion of ADOT's obligations to per-
22 form the work required by Article VIII of this Agreement, EPA
23 will give notice to ADOT that this Agreement is terminated, ex-
24 cept that,

- 25 1. The requirements of Article VI and Article XVIII shall
26 thereafter continue until the Indian Bend Wash Superfund
27 Site is deleted from the National Priorities List.
28 2. The Covenant Not To Sue contained in Article X shall

1 thereafter remain in effect, subject to:

2 a. The Reservations of Rights contained in Article

3 XI;

4 b. ADOT's continued exercise of due care as required

5 by Article VII and Article XI;

6 c. Any and all other promises, exchanges and agree-

7 ments made by ADOT in this Agreement that are a condi-

8 tion of Article X taking or remaining in effect.

9 3. Any other Articles or portions of Articles that contain

10 covenants, exchanges, agreements, reservations or restric-

11 tions that are necessary to remain in effect for the parties

12 to fulfill the intent of the Agreement shall remain in ef-

13 fect.

14

15 IT IS SO AGREED:

16

17 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

18 BY: Daniel W. McGovern 6.27.91 Date

19 DANIEL W. MCGOVERN
20 Regional Administrator, Region 9

21

22 STATE OF ARIZONA
23 DEPARTMENT OF TRANSPORTATION

24 BY: Gary K. Robinson

25 GARY K. ROBINSON
State Engineer

26 6/18/91 Date

27

28

1 UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
2 OFFICE OF ENFORCEMENT

3 Approved by:

4 Stan C. Fulte 8/22/91
5 EDWARD E. REICH Date
6 Acting Assistant Administrator for Enforcement

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Attorney General

1275 WEST WASHINGTON

Phoenix, Arizona 85007

~~EX-100-100-100-100~~

Grant Woods

INTERGOVERNMENTAL AGREEMENT

DETERMINATION

A. G. Contract No. KR91-~~121-TRD~~, is an

agreement between public agencies has been reviewed pursuant to
A.R.S. § 11-952, as amended, by the undersigned Assistant
Attorney General who has determined that it is in the proper
form and is within the powers and authority granted to the State
of Arizona.

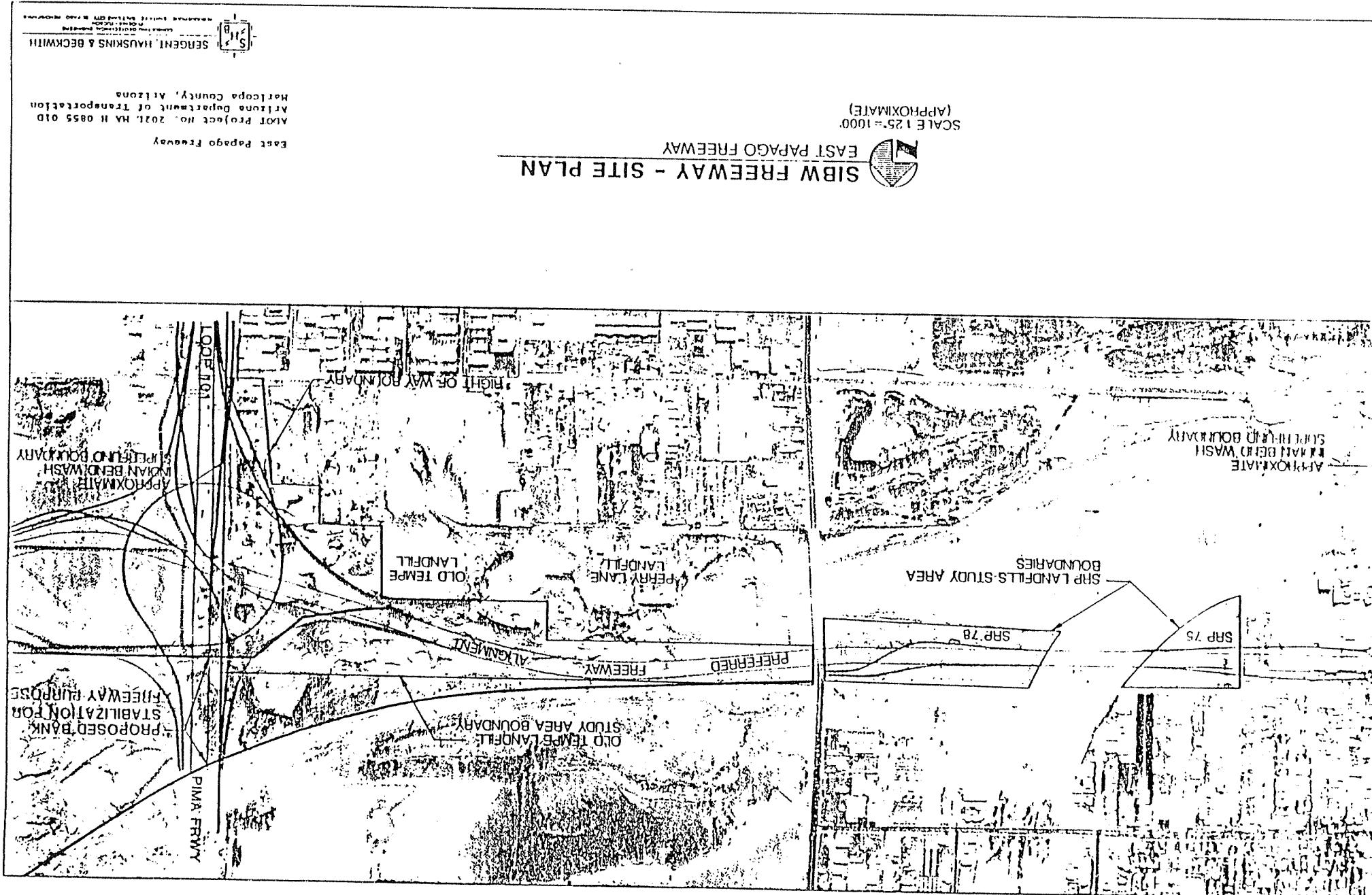
No opinion is expressed as to the authority of the
remaining parties, other than the State or its agencies, to
enter into said agreement.

DATED this 17 day of February, 1991.

GRANT WOODS
Attorney General

GRANT WOODS
Assistant Attorney General
Transportation Division

EXHIBIT A



CHANNEL DESIGN CRITERIA FOR
MAJOR WATERCOURSES*

1. All geotechnical test results shall be provided for District review. Gradation data shall be obtained that is representative of the full depth of the moveable bed. The District's rule of thumb for bore hole/test pit intervals is a minimum of one per 500 feet. If an armoring analysis is to be presented for review, gradation test results for the channel bed samples shall include the percentages of the 3 inch plus material encountered.
2. The geotechnical exploration shall determine if landfill or hazardous material deposits are present within the channel alignment, and if so, their impacts on channel design and costs.
3. If existing gravel pits are to be filled, gradation specs shall be needed for the material that is to be placed in the moveable bed zone.
4. Levees shall be designed to conform with FEMA freeboard criteria. (100-year frequency peak flow with three (3) feet of freeboard plus one (1) foot at bridges) In non-levee conditions a minimum of one (1) feet of freeboard shall be provided.
5. HEC-II shall be used to perform back water calculations, unless the District agrees to another method. A hard copy and floppy disk with input and output files shall be submitted for District review.
6. The location of cross sections used in the water surface profile calculations shall be provided on a scaled map.
7. The final plans shall include profiles showing the top of levee protection, HGL, invert, and the low chords for all bridges.
8. Tributary (side) drainage to the channel shall be addressed such that the more severe of the following conditions govern: 1) 100-year frequency peak in the main channel with 10-year frequency peak tributary drainage or 2) 10-year frequency peak in the main channel with the 100-year frequency peak tributary drainage.
9. Consideration shall be given to the upstream and downstream river and floodplain conditions and how those conditions may impact the proposed channel. Existing and potential material extraction and landfill operations shall be addressed in this context. Overbank flooding upstream of the channelization shall be analyzed to ensure that those flows enter and are contained within the improved channel. The design and analysis shall address the potential impacts of known future modifications that may be proposed by others.

* Design Criteria to be used for Flood Control District of Maricopa County designed, funded or maintained projects.

unconstricted reaches, is to be quantified by computer models for flows representing a hydrological history, as described in Item 3 below, and shall be supplemented with hand calculations.

2. Bed-form scour, due to the passage of dunes or antidunes, shall be computed from analytical relationships developed by investigators such as Yalin and Kennedy, as described in textbooks on sediment transport technology. The maximum hydraulic parameters associated with the passage of a 100-year frequency peak shall be used to establish the quantitative values for this scour component.
3. Long-term Aggradation/Degradation shall be computed by using the concept of equilibrium slope or the concept of streambed armoring, depending on which approach controls the long-term channel profile. The equilibrium slope concept shall utilize a sediment transport relationship which incorporates the D_{50} and gradation of the streambed sediment. The streambed-armoring concept shall utilize the critical tractive shear stress approach and the representative (armor) particle size. A series of flood frequency hydrographs from 10 to 100-year, shall be used to represent the hydrologic history that the structure may experience in its life as a basis for determining these long-term trends. The "dominant" discharge shall generally be assumed to be the 10-year frequency discharge.

If a sediment analysis is required, the analysis shall consider the sediment load entering the study reach. If computer software is used to analyze the sediment transport, a hard copy and floppy disk with input and output files shall be submitted for District review.
4. The scour due to river bend shall be considered and added to the required bank toe depth calculation.
5. The scour due to any local obstruction (bridge pier, etc...) shall be considered and added to the required bank toe depth calculation.

10. Maintenance access and channel invert access ramps shall be incorporated into the design.
11. The scour analysis shall be performed using an analytical approach based on the velocity associated with the 100-year frequency peak flow, the depth of the thalweg, and the soil gradation of the channel bed materials.
12. Degradation and aggradation analyses shall include factors for dunes and antidunes.
13. The depth of scour, measured from the low-flow thalweg invert elevation, shall be used to determine the toe-down elevations for bank protection based on the 100-year frequency peak flow.
14. Local scour calculations shall be provided for review. These calculations are to be tabulated at all critical design locations and presented with a map showing the locations.
15. Levee slope stability analysis calculations shall be submitted for District review. The analysis shall consider pore pressure caused by rapid draw down.
16. Provide calculations to show that the type of bank protection (riprap, gabions, etc...) is suitably sized to resist hydraulic forces at the design frequency peak flow.
17. All hydraulics and structural calculations performed to substantiate the design of slope or channel stabilization shall be provided for District review.
18. All calculations shall be independently checked by a person at least as competent as the designer before submitting them to the District. Both the designer and checker shall initial and date each page of calculations that is submitted.
19. Minimum factors of safety for scour and forces on structures shall be 1.5 based on the 100-year frequency peak flow.

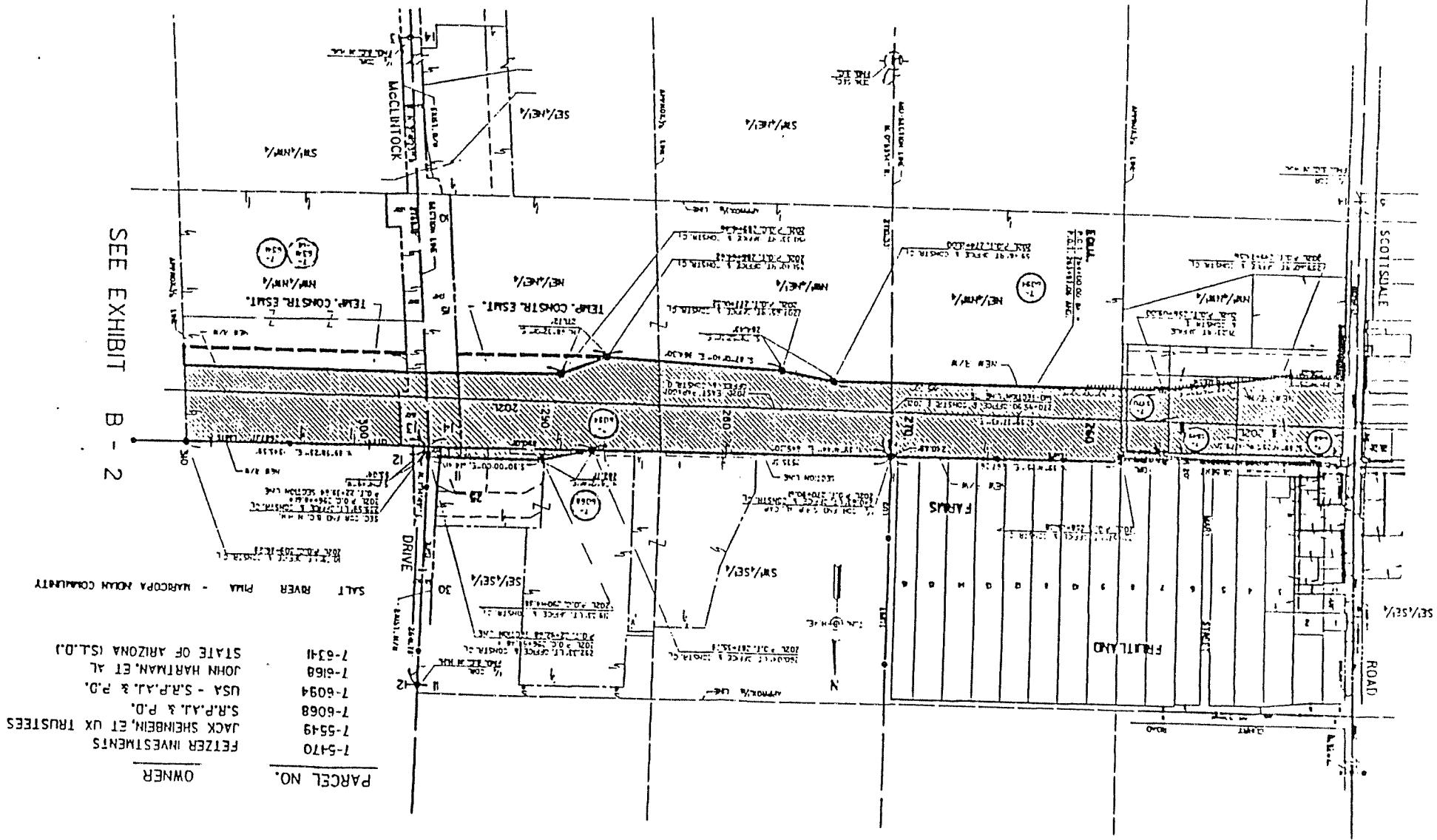
**ANALYTICAL APPROACH FOR DETERMINING REQUIRED
TOE DEPTHS FOR BANK PROTECTION**

The following analytical approach shall be utilized for determining required toe depths for bank protection:

1. Contraction Scour (includes General Scour), in the vicinity of bridge crossings and river sections that have been constricted due to landfill or any other type of encroachment shall be computed by methods described in Federal Highway Administration, FHWA, Hydraulic Engineering Circular Nos. 18 and 20, and other publications deemed appropriate for the 100-year frequency flow. General scour for

EXHIBIT B-1

SEE EXHIBIT
B - 2





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, Ca. 94105-3901

Steven A. Jimenez
Project Management Supervisor
Arizona Department of Transportation
Highway Division
206 South Seventeenth Ave. Mail Drop 14E
Phoenix, AZ 85007-3213

RECEIVED
SEP 24 1993
STATEWIDE PROJECT
MANAGEMENT A⁹

SEP 21 1993

RE: Agreement and Covenant Not To Sue; EPA Region 9 Docket No. 91-13; Attachment of Amended Exhibit B-2 to the Agreement.

Dear Mr. Jimenez:

EPA is in receipt of your letter dated August 10, 1993 requesting that the Agreement and Covenant Not to Sue (EPA Docket No. 91-13) incorporate the revised Exhibit B-2. The revised Exhibit B-2 shows the additional property needed to construct 100 year flood protection levees along the Salt River banks.

Your letter states that ADOT is currently discussing increasing the flood protection from 10 to 100 year protection with other agencies, and it is EPA's understanding that although Exhibit B-2 includes property for the construction of levees along the Salt River which would provide protection for 100 year flood events, a final decision has not been made.

EPA agrees to attach the revised Exhibit B-2 to the Agreement and Covenant Not To Sue. The definition for "Freeway Property" remains as it is defined in Section III, page 3 of the Agreement and Covenant Not to Sue as all property ADOT acquires for construction of the East Papago Freeway and Interchange which lies within the boundaries of the Indian Bend Wash Superfund Site, but Exhibit B-2 will be the revised figure provided as attachment to your August 10, 1993 letter.

If you have any questions you may contact me at (415) 744-2369 or David Silverman at (415) 744-1377.

Sincerely,

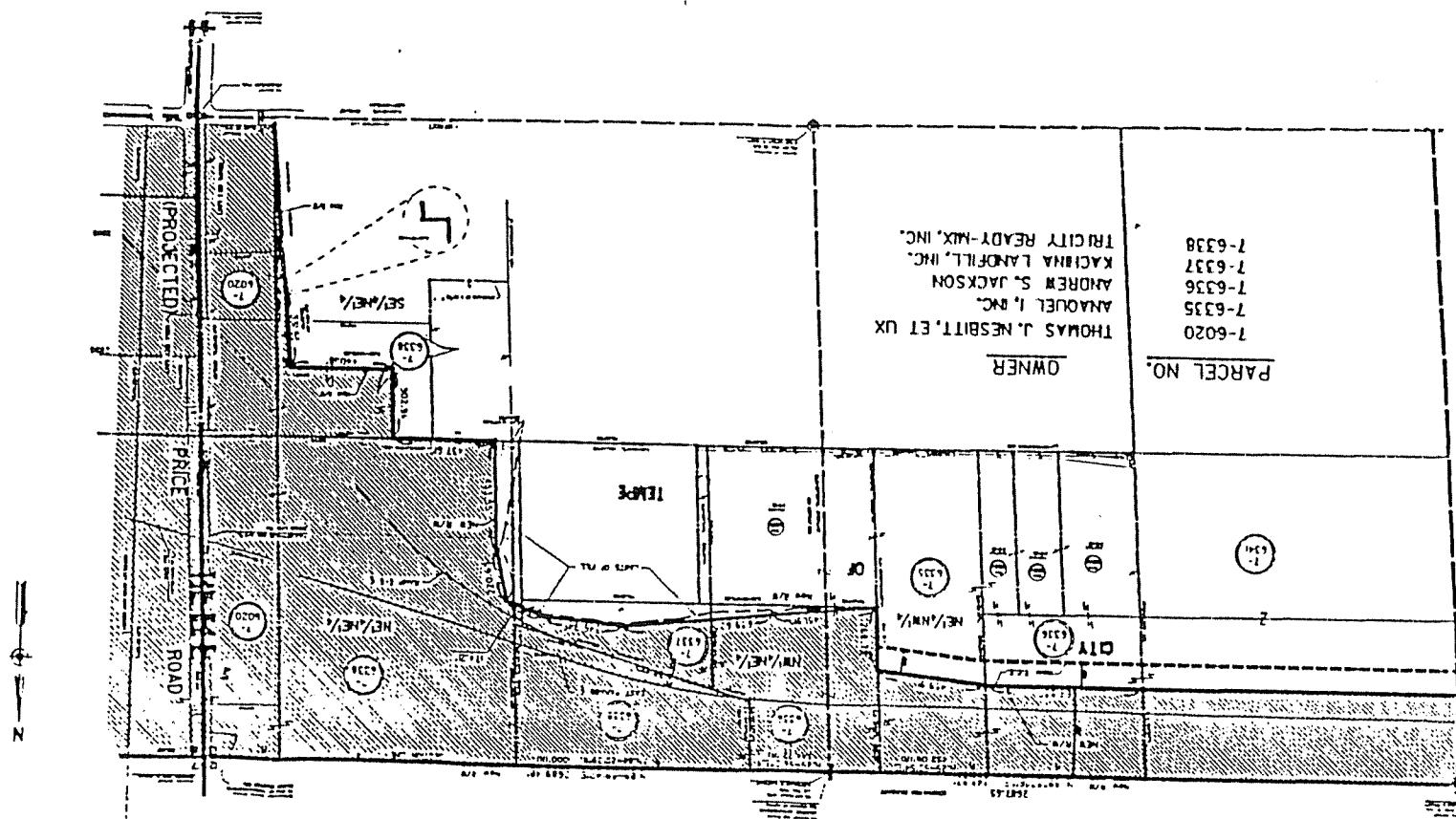
Roberta Riccio
Remedial Project Manager
Superfund Remedial Branch

cc: Byron James, ADEQ
David Allard, CH2M Hill
David Silverman, EPA-ORC

Dick Kamps, Lega/
Tom Robinson, SMCRA
Glen Robinson

EXHIBIT B-2

NOTE: DISTANCES SHOWN ON NEW R/W ARE APPROXIMATE.



SALT RIVER PIMA - MARICOPA INDIAN COMMUNITY

EXHIBIT "C"

SCOPE OF WORK
REMOVAL ACTION PLAN FOR HAZARDOUS SUBSTANCES
EAST PAPAGO FREEWAY CORRIDOR
SOUTH INDIAN BEND WASH SUPERFUND SITE

This Scope of Work (SOW) is part of, and referenced by, an Agreement and Covenant Not to Sue ("the Agreement") between the State of Arizona, Department of Transportation ("ADOT") and the U.S. Environmental Protection Agency ("EPA"). This SOW is valid only as the Agreement is valid, and in case of conflict the Agreement shall supersede this SOW.

INTRODUCTION

The purpose of this SOW is to identify the tasks that will be undertaken by ADOT to remove any threat to public health or the environment created by the existence of any hazardous substances, pollutants or contaminants within those land parcels purchased by ADOT for the construction of that portion of the East Papago Freeway within the South Indian Bend Wash Superfund Site ("SIBW Site").

Due to the nature and distribution of waste materials within the subject SIBW Site, the definition of hazardous substances, pollutants or contaminants (hereinafter referred to collectively as "hazardous substances") are particularly significant and are defined in Article III of the Agreement. ADOT will be involved with the removal, treatment and/or containment of a considerable volume of non-hazardous materials, in which suspected hazardous substances have been detected or may be detected during construction of the freeway corridor. Therefore, the SOW for hazardous substances becomes, by necessity, an integral part of the effort completed by ADOT in order to properly construct the freeway.

ADOT has performed investigations of the environmental conditions within the area of the Old Tempe Landfill in June of 1988 and is continuing with additional investigations which began in late 1989. These field studies, in conjunction with evaluations undertaken by EPA, will result in an estimate of the concentration, extent and nature of waste and hazardous substances. Some of the findings from these investigations have already been drafted. Reference is made to the report of Findings (SHB Letter No. 314, dated January 6, 1989), for a further description of SIBW Site conditions.

ADOT will integrate the Engineering Evaluation/Cost Analysis (EE/CA) process into the East Papago Freeway project. The Preparation of the proposed EE/CA will come at a time when considerable location studies and related analyses have already been completed. ADOT has selected a preferred alignment and positioning of the freeway components, and both environmental and river scour/hydraulic studies are ongoing.

FREEWAY PROPERTY DESCRIPTION

ADOT intends to acquire real property along the Salt River in Tempe, Arizona from McClintock Drive to Price Road extended, of variable width of from 300 feet to one half mile. The exact description of the property that will be subject to cleanup under the Agreement and this SOW is defined in the Agreement.

SCOPE OF WORK

ADOT will perform an EE/CA for a non-time-critical removal action in order to allow EPA to select a removal action for the freeway property, consistent with the remedy for the overall SIBW Site. Once the removal action is selected, ADOT will implement the selected removal action, and perform all tasks as outlined in the Agreement and this SOW.

In general conformance with available EPA guidelines on EE/CA's for non-time-critical removal actions, ADOT will complete seven (7) tasks. As described below, the first two tasks outline the EE/CA process, and include performing necessary site characterization, identifying the removal action objectives and alternatives and analyzing and comparing the selected options. The remaining tasks define the design and implementation of the removal action. The effort will culminate in the identification of the proposed removal action.

The formulation of this SOW is based upon a preliminary appraisal of the environmental conditions and removal action alternatives. The EE/CA objectives, and Tasks 1 and 2, the site characterization for the EE/CA and evaluation of alternatives, can be clearly defined at this time. Tasks 3 through 7 can only be addressed in general, since the selection of a removal action will ultimately dictate the nature of the final design. Further tasks may be established in amendments to the SOW, based on the review of data. Such revision would be made as set forth in the Agreement.

A SIBW Site Plan showing a proposed freeway alignment and general features of the SIBW Site is attached as Exhibit "A" of the Agreement.

A tentative schedule for the selection of the removal alternatives by EPA is attached. ADOT will review this schedule quarterly, confer with EPA on any proposed changes, and publish a revised version as necessary.

OBJECTIVES OF THE EE/CA

An EE/CA will analyze removal action alternatives for a non-time-critical removal action for the areas defined in the Agreement. This action will be performed within the context of the overall cleanup of the SIBW site. For purposes of this SOW, the

term "overall cleanup" refers to the entire remedial action for the SIBW site, including those actions by other parties subject to Superfund and related to environmental problems which will not be corrected by ADOT.

Based upon environmental and hydrogeologic information that has been and will be compiled in support of this EE/CA, ADOT will complete an EE/CA by developing and analyzing two separate, but related components which are as follows:

- a. Determination of the removal action to be employed for handling or disposing of hazardous substances encountered as the freeway is constructed, including the hazardous constituents of municipal solid wastes or construction debris slated for excavation. The EE/CA will address the contamination encountered within the areas designated for cleanup in the Agreement.
- b. Document the process undertaken to select the freeway alignment, which will include an assessment of other alternatives considered to meet the requirements of Section 404 of the Clean Water Act (CWA 404).

COMPONENT TASKS OF THE EE/CA

Task 1 – Site Characterization, Applicable or Relevant and Appropriate Requirements (ARARS) and Integration into Overall East Papago Freeway Project

The purpose of this task is to provide sufficient site data to support the evaluation and selection of alternatives in the EE/CA. Performing this task involves performing sampling, interpretation, evaluation and reporting of data in such that it is clear the analysis of alternatives is sound. The data derived in this task becomes part of the EE/CA.

ADOT has conducted earlier sampling efforts in the study area and several studies are ongoing. The findings of the site characterization will be formalized and submitted to EPA. The formalized report (either part of the EE/CA report or separate) will include data analysis and interpretation so as to allow for effective support of the removal action selection process for the cleanup. River hydraulics and scour studies are also ongoing.

In addition, previous studies undertaken to select a preferred alignment through the SIBW Site will be summarized for subsequent EPA review.

All data collection methods, sampling schemes, laboratory techniques, and quality assurance/quality control procedures used in this task will be subject to EPA review and approval. EPA review

will occur when a plan is submitted for these activities. For data submitted by ADOT that was collected prior to the effective date of this Agreement, or collected outside the scope the this Agreement, ADOT will provide EPA the sampling and laboratory protocols used in the data collection, accompanied by any QA/QC documentation. Either EPA will review, or will ask ADOT to review, such protocols and documentation. Based on the review, EPA will determine the data's validity. Submittal of Plans will be according to the Agreement, or if not specified therein, then as agreed between EPA and ADOT.

Data collection will focus on the following:

- a. The lateral extent of landfill materials in the areas to be cleaned.
- b. The vertical extent of landfill materials in the areas to be cleaned.
- c. Identification of the hazardous constituents and the concentrations of constituents in the landfill and landfill gas, to the extent necessary to select a removal action.
- d. The river dynamics and scour characteristics and effects on the potential removal actions to be considered, by the EE/CA.
- e. The river dynamics and scour characteristics that would occur under the various bank stabilization locations, being considered as options for the final removal action and the effect this would have on hazardous substances.
- f. Site drainage, relief, soil characteristics, climate and other physical characteristics that may have an effect on contaminant migration by air or water, either naturally or under the scenario of a removal action alternative.

Special attention will be given to the effect that movement of non-hazardous material may have on hazardous substance, and data will be collected to assess the potential for migrations of hazardous substances during the movement of non-hazardous material. Much of the material to be moved by ADOT will potentially be non-hazardous material. ADOT will acquire any necessary Arizona State Permits for waste disposal and aquifer protection.

Utilizing the site characterization data obtained by EPA and ADOT over the past three years, ADOT will identify a preliminary array of chemical-specific and location-specific ARARs in anticipation of analyzing Action-specific ARARs and establishing realistic cleanup goals. Action-specific ARARs will be established once the removal action alternatives are identified.

Task 2 – Removal Action Alternatives Identification, Analysis and Selection

- a. Identify Removal Action Alternatives. ADOT will develop a series of removal action alternatives to be analyzed in the EE/CA. Each alternative will be defined in terms of the physical resources, space, time, and personnel required to implement the option. As previously defined, separate sets of alternatives will be identified and analyzed for the selected freeway location and the management of hazardous substances. The alternatives identified will include a range of both treatment and containment options for the waste materials, with consideration for CWA 404 requirements for alternatives analysis. For the hazardous substances handling alternative, alternatives for siting repositories will also be considered. Through each step of the EE/CA process, ADOT will plan for a removal action that will be compatible with the ultimate remedy selected for the landfills at the SIBW Site.

In constructing each alternative, if practical, consideration will be given to various end uses of the cleaned material or recovered gases. Also, consideration will be given to physical or chemical pretreatments that might improve the performance of an alternative, or make it practical when it would otherwise be ruled out. The potential for air emissions will be determined so that risks can be assessed during alternatives analysis.
- b. Analyze the Removal Action Alternatives. A comprehensive analysis of the removal action alternatives will be completed. Each alternative will be individually analyzed for effectiveness, implementability, and cost. The following describes the elements of this process:
 1. Effectiveness. Protection of community and worker health during removal action; expected reduction in threat to human health and the environment; comparison to time required to complete action compared to removal action schedule; compliance with ARARs, criteria, advisories and guidances; identification of environmental impacts of removal action and opportunities to mitigate; potential for future exposure; long-term reliability; analysis determine the degree to which each alternative utilizes treatment or recycling in lieu of land disposal.
 2. Implementability. Ability to construct and operate; evaluation of demonstrated and available options; effect of environment upon operation; post removal site control; analysis of administrative feasibility.

3. **Cost.** Evaluation of the cost of each alternative, including construction, operation and maintenance costs. Capital cost considerations will include direct capital cost for development and construction, estimated indirect costs for design and preparation of specifications and bid documents, and other capital and short-term costs (permitting and legal). Operating and maintenance costs will include labor, materials and energy costs, administrative expenses, a contingency for possible future removal actions and long-term monitoring costs.

4. **Requirements.** The EE/CA will present an analysis of ARARs and other guidelines to be considered for specific substances, chemical constituents, and potential removal actions. An analysis of ARARS and other guidelines that pertain to location specific conditions will also be performed. An analysis of risk to public health and the environment is also in preparation that considered the known characteristics of the site and potential removal activities. The ARARS, criteria to be considered, the risk analysis and knowledge and experience within the regulatory framework will be utilized to identify hazardous substances and conditions in the EE/CA and during removal and remediation processes.

c. **Contingency Planning for Landfill Materials.** The handling and disposal of non-hazardous waste cannot be accomplished without appropriate site monitoring, verification testing, contingency plans and treatment capabilities for any hazardous substances that may be encountered during waste removal. ADOT will develop a contingency plan subject to EPA approval, to govern the segregation of hazardous substances from non-hazardous waste and the proper handling and disposal of the hazardous substances.

The EE/CA will recommend that monitoring during removal include field determination of air quality, testing of waste being removed using a field laboratory or a certified off-site laboratory, and inspection of waste and removal operations by a qualified observer.

Contingency planning will consist of establishing appropriate actions should construction or removal activities encounter hazardous substances that have not been detected in site characterization efforts. These contingency plans will include provisions for response to emergency, appropriate notification should hazardous substances be encountered, provisions for testing (or retesting, if appropriate) of the suspected material, provisions for handling of the potentially hazardous material and health and safety considerations associated

with removal of large masses of waste from landfill conditions.

Recommended testing will include analyses of substances during removal, sampling and analyses of the air at the site during removal, and verification testing once the landfill materials have been removed.

- d. Compare Alternatives. ADOT will qualitatively assess the strength and weaknesses of each alternative and compare the results. ADOT will display the results of this analysis graphically in the EE/CA report, verifying ARARs compliance, and displaying the degree to which threats to human health and the environment are relieved by each alternative. Short-term risks to the health in carrying out each alternative will also be assessed.
- e. Recommend Removal Action. Based upon the evaluation and comparison of viable alternatives, ADOT will recommend a preferred removal and siting approach.

Including and referencing existing site characterization, surface water hydrology and alignment alternative studies, ADOT will prepare an EE/CA report. This report will be compiled in accordance with EPA guidance and regulation for such a document. ADOT will be prepared to respond to comments and suggested revisions originating from EPA or the public. ADOT will not implement the removal action until EPA has approved the EE/CA.

Tasks 3 Through 6 – Design and Implementation

Subsequent to completion of the EE/CA process, ADOT will implement a four-task effort which will initiate the actual handling, treatment and/or containment of both the hazardous substances and non-hazardous waste and freeway construction in the subject corridor.

All of the tasks described below will be performed with full recognition of their interrelationship to the freeway construction and the disposition/treatment of hazardous substances. The most critical design components which link freeway design to the removal action are the flood protection structures adjacent to the East Papago Freeway and the final position of the bridges and embankment toe of slopes. The details of Tasks 3 through 6 are subject to revision once the EE/CA process is complete and the alternatives for hazardous substances handling are selected.

Tasks 3 and 4 do not apply to monitoring well installation since ADOT is only responsible for final design and construction for monitoring well installation.

Task 3 – Secondary Site Characterization

Should additional site characterization be required in the final EE/CA analysis or in the design phase of removal action implementation, the supplemental effort will commence with a geotechnical and/or sampling program which will form the basis for final design. The evaluation of data previously gathered will provide the basis for any additional sampling (the plan will be subject to EPA approval). The studies may further define the geotechnical conditions at the proposed repository sites. In order to meet the critical time schedule of the freeway construction, it will be necessary to begin the secondary site characterization program immediately after the EE/CA process, or prior if agreed to by EPA and ADOT.

Site characterization may be followed by the following actions as necessary:

- a. Identification of utility conflicts and modifications or relocations required.
- b. Integrate proposed actions with freeway design, flood protection and right of way available for disposal.
- c. Develop detailed removal action procedures. If deemed feasible, these procedures could include material separation, site monitoring, stockpiling, and related activities.
- d. Make more exact estimate of waste volumes.
- e. Develop formal design plans and supporting documents including repositories, drainage, landscape, fencing, and access considerations. All design plans will be subject to EPA approval.
- f. Coordination of design with ADOT, EPA, the Arizona Department of Environmental Quality (ADEQ), the Army Corp of Engineers (COE), section designers, and other affected agencies.

Task 4 – Permitting & Regulatory Compliance for Non-hazardous Materials

- a. Define permit and regulatory approval requirements through communications with ADEQ, COE, and other agencies.
- b. Prepare and submit formal permit applications and supporting technical documents (refer to ADEQ aquifer protection permit rules for the nature of evaluations described in subsections 1 through 4 below):

1. Best Available Demonstrated Control Technology
 2. Cost Analysis
 3. Preliminary Design
 4. Hydrogeologic Characterization
- c. Continue liaison and coordination with agencies.
 - d. Submit design package and documentation supporting proper construction and closure to appropriate agencies (EPA, ADEQ, etc.).

Task 5 – Final Design

- a. Possible design components which may be developed:
 1. Design geometry and relationship with freeway components.
 2. Groundwater monitoring network.
 3. Vadose zone monitoring plan.
 4. Earthwork grading and hard bank design criteria.
 5. Seepage control.
 6. Leak detection, leachate collection and management.
 7. Methane gas collection system.
 8. Cover design.
 9. Runoff/erosion control and final grading.
 10. Access roads and fencing.
 11. Utility relocations and modifications.
 12. Landscaping.
 13. Three monitoring wells.
- b. Develop plan of action for removal of underground storage tanks (USTs).
- c. Specify well closure procedures.
- d. Define removal and disposal methods for isolated soil contamination by volatile organic compounds (VOCs) and petroleum products.

- e. Develop specific procedures for remediation of fuel oil spill at Century Materials.
- f. Specify removal and treatment action for power transformers.
- g. Design of repositories, as needed.
- h. Develop final specifications.
- i. Develop final design plans.

Task 6 – Preparation of Construction Documents & Cost Estimates

- a. Prepare engineer's cost estimate.
- b. Prepare construction schedule.
- c. Specify health and safety procedures:
 1. Air Quality.
 2. Particulates.
 3. Asbestos.
 4. VOCs.
 5. Personal Protection Equipment.
 6. Decontamination procedures.
- d. Define sampling and laboratory requirements.
- e. Establish procedures for pre-removal testing, methods for removal and selection, classification standards for MSW, construction debris and hazardous substances, and post removal verification.
- f. Analyze alternatives for processing of structural fill.
- g. Establish documentation procedures.
- h. Develop hazardous waste contingency decision trees.
- i. Develop bid documents and specifications for removal procedures.
- j. Develop maintenance procedures for repositories, as needed.

Tasks 3 through 5 will culminate in a final design plan prepared by ADOT for EPA review. The design plan will be reviewed and approved

by EPA prior to beginning construction on the removal action, unless otherwise agreed to by EPA and ADOT.

Task 7 – Monitoring Wells Installation

ADOT will install and develop three groundwater monitoring wells, in the upper (shallow) alluvial unit, at locations and with construction specifications, as provided in the Agreement and only if ADOT is supplied by EPA the necessary permission outside of the Freeway Property at no expense to ADOT. The wells shall be installed by ADOT under an appropriate temporary construction easement. After completion of the wells, ADOT shall have no further responsibility for maintenance or other work.

DMJM

EXHIBIT "C"

AGENCY RESPONSIBILITY
FOR UNSUITABLE MATERIALS

- F.C.D.M.C. RESPONSIBILITY
- A.D.O.T. RESPONSIBILITY

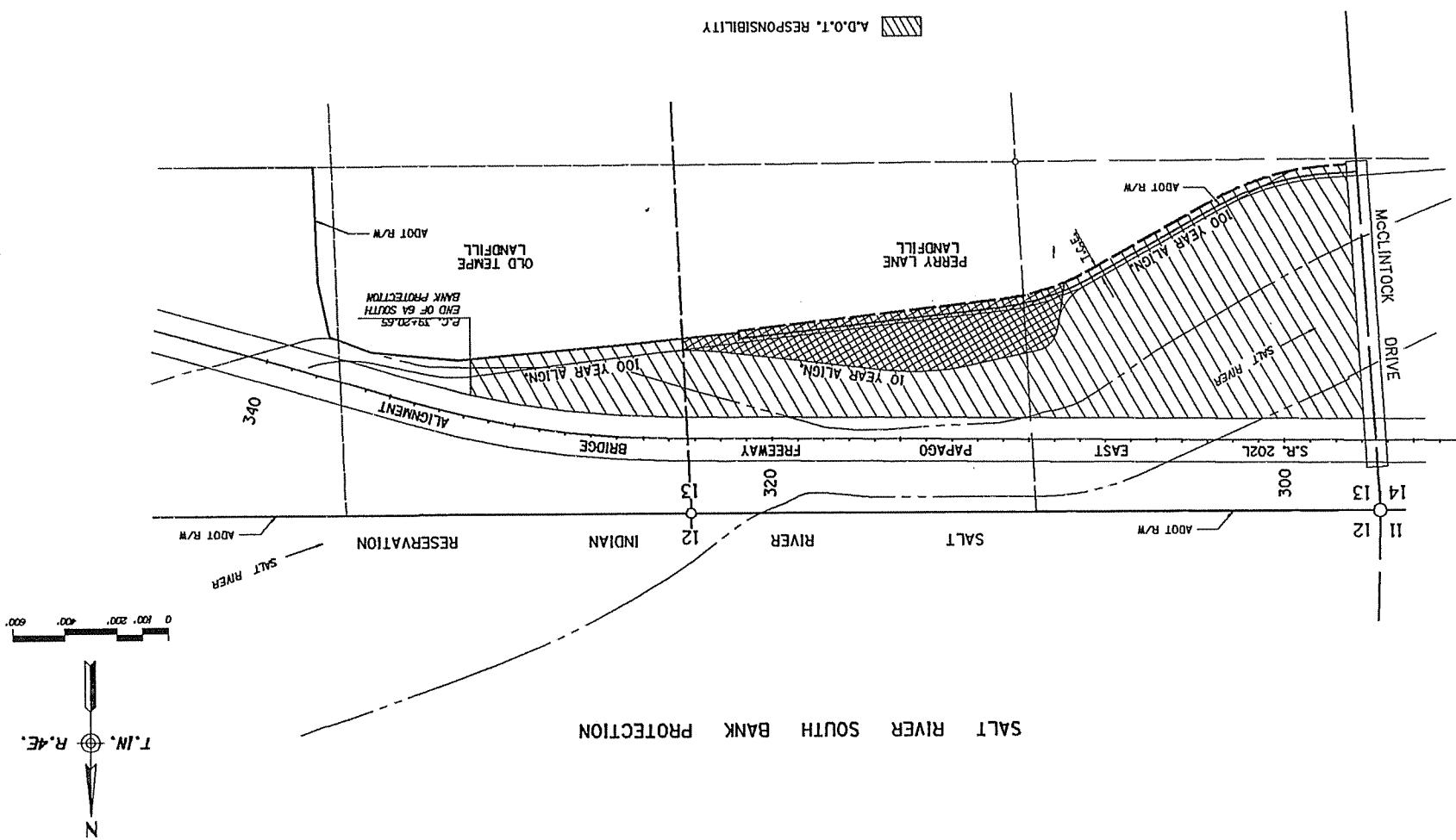




EXHIBIT "D"

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

JUN 09 1994

Mr. Terry Bourland
Project Manager
Arizona Department of
Transportation
205 S. 17th Avenue
Phoenix, AZ 85007-3212

Re: Agreement and Covenant Not to Sue (EPA Region 9 Docket No. 91-13; Arizona A.G. Contract No. KR91-0945-TRD

Dear Mr. Bourland:

EPA has received the May 4, 1994 letter sent from Richard Kamp, Assistant Attorney General, Transportation Section which requested a letter be sent to your attention to clarify the real property included in the Agreement and Covenant Not to Sue (EPA Docket No. 91-13, Arizona A.G. Contract No. KR91-0945-TRD) ("Agreement"). EPA has reviewed the Arizona Department of Transportation's (ADOT) request and agrees that any real property that ADOT acquires for the purpose of building 10- or 100-year flood protection on or near the banks of the Salt River between Rural Road and Price Road- Extended shall be considered "freeway property" under the Agreement. Accordingly, if ADOT executes the "Work to be Performed" under Article VII of the Agreement with respect to any such property, in accordance with all terms and stipulations therein, then the Covenant Not To Sue shall be extended to ADOT for this property. To clarify, ADOT would not be required to install any additional groundwater monitoring wells, as this independent requirement of Article VIII has already been met by ADOT.

As soon as it is available, please provide a complete set of drawings indicating the hard bank location and width, and showing as accurately as possible the landfill material that will be disturbed or removed in the bank-building process.

If you have any questions regarding this letter or work to be performed please contact me at (415) 744-2369.

Sincerely,



Roberta Riccio
Remedial Project Manager
Superfund Enforcement Branch

cc: Richard Kamps, Assistant Attorney General
Byron James, ADEQ
Jeff Dhont, EPA (H-7-2)
Mardi Black, EPA, Office of Regional Counsel (RC-3-4)

IN ACCORDANCE WITH AGREEMENT AND
COVENANT NOT TO SUE BETWEEN
EPA AND ADOT

	June 1991																	
Task / Milestones	May 1	May 2	May 3	May 4	May 5	May 6	May 7	May 8	May 9	May 10	May 11	May 12	May 13	May 14	May 15	May 16	May 17	May 18
SITE CHARACTERIZATION																		
OIL Study Area																		
SRP-75/TB DRAFT REPORTS																		
COST ANALYSIS																		
ENGINEERING EVALUATION																		
Report Preparation																		
Submit DRIFT ECA																		
Submit Preliminary																		
Locality Survey																		
Submit Preliminary																		
Surf. HAZLOC SURY																		
Submit Preliminary																		
EPA Review Period																		
Submit FINAL REPORT																		
Response to Comments																		
EPA Review Period																		
EPA PUBLIC NOTICE																		
OF AVAIL. & SUMMARY																		
30 - Day Public																		
Comments Period																		
HEHO & RESPONSIVENESS																		
EPA PREPARES ACTION																		
SUMMARY																		

TENTATIVE SCHEDULE
REMOVAL ACTION PLAN FOR HAZARDOUS SUBSTANCES
EAST PAPAGO FREEWAY CORRIDOR
SOUTH INDIAN BEACH WASH SUPERFUND SITE

EXHIBIT E

FLOOD CONTROL DISTRICT MARICOPA COUNTY
FLOOD CONTROL FEATURES SALT RIVER CHANNEL ONLY

MAINTENANCE RESPONSIBILITY

FCD/MC RESPONSIBILITY

